Amendments to the Specification:

Please replace the paragraph beginning on page 4, line 23, with the following redlined paragraph:

To this end, a non-limiting, illustrated embodiment of an optoelectronic device for acquiring bichromatic bar codes, comprises:

- a reading window,
- sensor means with electronic scanning comprising a two-dimensional sensor comprising a plurality of individual detectors known as pixels transmitting electrical signals representing the quantity of light which they receive, the sensor means being adapted to carry out electronic scanning or at least a portion, known as scanned portion, of this two-dimensional sensor in a direction, known as scanning direction XX', the pixels of the two-dimensional sensor being ordered in a plurality of h rows juxtaposed in a direction, known as direction YY', perpendicular to the scanning direction XX', the two-dimensional sensor/extending in the direction YY' over a height greater than a pixel, the scanned portion having a dimension in the direction YY', known as height Hy, which is constant during each scanning operation, from one side to the other of the two-dimensional sensor in the scanning direction XX',
- optical means adapted to form, at least on the scanned portion of the two-dimensional sensor, an image of a symbol or code to be acquired located opposite the reading window, wherein, in order to acquire a code placed opposite the reading window, the sensor means are adapted to carry out at least two scanning operations (*i.e.*, passes) and to modify, between at least two successive scanning operations, the height Hy of the scanned portion of the two-dimensional sensor.

Please replace the paragraph on page 6, line 3, with the following redlined paragraph:

Also to this end, a non-limiting, illustrated embodiment of a method of operating an optoelectronic device for acquiring bichromatic symbols, comprises:

- a reading window,
- sensor means with electronic scanning in a global scanning direction, known as scanning direction XX' comprising a plurality of individual light detectors known as pixels transmitting electrical signals representing the quantity of light which they receive, these sensor means comprising a two-dimensional sensor of which the pixels are ordered in a plurality of h rows juxtaposed in a direction, known as direction YY', perpendicular to the scanning direction XX', this two-dimensional sensor extending perpendicularly to the scanning direction XX' over a height greater than a pixel, the sensor means being adapted to carry out electronic scanning of at least a portion, known as scanned portion, of the two-dimensional sensor having a dimension in the direction YY', known as height Hy, which is constant during each scanning operation, from one side to the other of the two-dimensional sensor in the scanning direction XX',
- optical means adapted to form, on the sensor means, an image of a symbol or code to be acquired located opposite the reading window,

a process for acquiring bichromatic bar codes, wherein, in order to acquire a symbol or code placed opposite the reading window, at least two scanning operations are carried out and, between at least two successive scanning operations, the height Hy of the scanned portion of the two-dimensional sensor is modified.

Please replace the paragraph on page 7, line 3, with the following redlined paragraph:

To modify the height Hy of the scanned portion, it is possible to modify either the height of at least one row of the scanned portion (by selecting a row of which the pixels have a different height pyj) or the number of rows in this scanned portion, in other words the number of successive pixels in the direction YY' of which the signals are added up in a same signal used during the decoding operation. These two variations may be combined. It is in fact possible to modify both the number of rows and the height of at least one row. In fact, the height Hy of the scanned portion is equal to the sum of heights pyj of each row j of this scanned portion. If all the heights pyj of the rows are equal to a same value py and if the scanned portion comprises by rows, the height Hy of this scanned portion is equal to hy x py. If the rows do not all have the same height pyj,

$$Hy = \sum_{j=1}^{hy} pyj \quad ; \quad Hy = \sum_{j=1}^{hy} pyj$$

Please replace the paragraph beginning on page 8, line 19, with the following redlined paragraph:

In a second preferred variation of the invention, the device automatically adapts itself to the codes to be read, of which the type and characteristics may be unknown. Advantageously, the device according to the invention comprising electronic processing means adapted, during each reading of a symbol or code to be acquired:

- to control the scanning operations by the sensor in the scanning direction XX' and receive the electrical signals issuing from the pixels,
- to execute a predetermined decoding protocol in order to obtain the value of information represented by the symbol or code,

wherein the sensor means are adapted to, after each scanning operation, execute treatment to optimize the height Hy in order to improve the results of the subsequent scanning stage and

reduce the number of scanning stages required for decoding, wherein, during this optimization treatment, an optimized value of the height Hy which is to be used during a subsequent scanning operation is determined as a function:

- of at least one previously measured value of at least one parameter representing the quality of the image acquired by the sensor means,
- and/or of at least one item of information issuing from a previously executed decoding stage,

and wherein the sensor means are adapted to record the optimized value of the height Hy determined in this way to be used during a subsequent scanning operation.

Please replace the paragraph on page 13, line 10, with the following redlined paragraph:

It should be noted that US 5,319,182 describes~~r~~ a mixed sensor which mixes light-emitting elements and light-sensitive elements which can be used in a bar code reader comprising a matrix of emitting and receiving diodes, and aims to provide axial lighting for the target aligned with the field of vision on the target to avoid the effects of diffusion and of layers. This document mentions configuration and optimization of the grouping and proportion of emitters and detectors in the matrix according to the image processing application thereof, in particular for the reading of bar code symbols. However, this document does not describe an electronic scanning device capable of adapting itself to the unknown characteristics of a symbol to be read and in which the number of pixels in the direction perpendicular to the scanning direction is modified between two successive scanning operations.

Please replace the paragraph beginning on page 15, line 25, with the following redlined paragraph:

The framework 35 of the optoelectronic device 3~~2~~4 contains an optical assembly 2, a sensor 3, and light source 4. The light source 4 can, for example, take the form of an LED strip and its associated optics, for illuminating the bar code symbol 1. The bar code symbol 1 to be acquired is placed opposite the reading window 7. The optoelectronic device 3~~2~~4 may be of the portable type intended to be moved by a user in front of a symbol to be acquired. Alternatively,

the optoelectronic device 34 may be of the stationary type, the symbol itself being moved manually or otherwise in front of the reading window of the device.

Please replace the paragraph on page 16, line 6, with the following redlined paragraph:

The sensor 3 takes the form of a two-dimensional sensor which is at least substantially centered on the optical axis ZZ' of the optical assembly 2. The sensor 3 includes a plurality of individual lighting detectors known as pixels. The pixels transmit electrical signals representing the quantity of light which they receive. The sensor 3 is of the electronic scanning type. In other words, the sensor's 3 pixels are read successively, individually or in groups, one after the other in a global scanning direction, known as scanning direction XX', perpendicular to the optical axis ZZ'. The sensor 3 is formed by a matrix of pixels ordered in a plurality of h rows, h being an integer greater than 1, juxtaposed in the direction YY' perpendicular to the scanning direction XX' and to the optical axis ZZ'. The scanning direction XX' corresponds to a direction of alignment or, at least, to the global direction of arrangement (median direction in the case of pixels covered in a zig-zag manner) of the pixels of the sensor 3. A sensor 3 of this type is well known as such. Each line of pixels is connected to an output, and the pixels are read successively by offsetting according to the frequency of a clock signal controlling the sensor 3.

Please replace the paragraph on page 20, line 8, with the following redlined paragraph:

Figure 4 shows a first variation of a process according to the invention employed in a device according to the invention to allow automatic determination of the optimized value of the height Hy, in particular of the pitch hy, in order to optimize the field depth of the device according to the invention. During stage 17, the values of the height Hy and of the width Hx of the individual read elements, in particular the values of the pitches hx and hy, are initialized to predetermined initial values Hy° and Hx°, in particular hy° and hy°. In practice, these initial values are of little importance in so far as the process according to the invention is converging very quickly. For example, hy° and hx° may be fixed at 1. Alternatively, hy° = h/2 (or ENT (h/2) if h is odd) and hx° = 1 may be selected, if monodimensional bar codes are to be acquired *a priori*. In the case of PDF 417 type bar codes, hy° = 1 and hx° = 1 may be selected. Whatever

the type of code to be acquired, the process according to the invention will allow decoding to be effected more or less rapidly depending on the initial value hy° implemented. In the variation in Figure 12, at least one of the rows is selected, in other words at least one of the heights pyj.

Please replace the paragraph on page 21, line 11, with the following redlined paragraph:

If the stage 20 determines that decoding has not ended, logic processing is executed in stage 22 to determine whether or not the height Hy, in particular the pitch hy and/or the selection of the row(s), of the scanned portion 16 should be modified. A new optimized value of this height Hy is determined and recorded during a subsequent modification stage 23. After determining the new optimize value, a return is made to the beginning of stage 18 in order to carry out a new scanning operation and a new reading of the bar code symbol 1 to be acquired. In this variation, therefore, the decoding process 19 is carried out after each stage of scanning 18. During the~~ile~~ logic processing stage 22, at least one measured value of at least one parameter representing the quality of the image acquired by the sensor 3 during the scanning stage 18 or during an earlier scanning stage 18, or one or more items of information issuing from an earlier decoding stage 19, or both at least one such measured value and at least one such item of information can therefore be taken into consideration.

Please replace the paragraph on page 23, line 1, with the following redlined paragraph:

Similarly, if it is known that the symbols to be acquired are PDF 417 type codes (pluri-monodimensional bar code symbols having a plurality of lines juxtaposed in the vertical direction), a predetermined formula may be used. Advantageously and according to the invention, therefore, the electronic processing circuit 36 is adapted to calculate the optimized value of the pitch hy in direction YY' for a bar code symbol of the type known as PPF 417 corresponding to formula (II):

(II) $hy = ENT\{MIN[(Ky/(2fx.py),[(1/py.tan(\theta max))).[1/(2.fx) - (Nminx.hx.px)]]\}$

wherein, θmax is the maximum permitted angular deviation round the optical axis of the sensor means relative to the symbol to be acquired,

px is the dimension of the pixels in the scanning direction XX',

fx is the maximum spatial frequency of a previously read image of the symbol in the scanning direction XX',

py is the dimension of the pixels in direction YY',

Nminx is the minimum number of groups of successive pixels in the scanning direction XX' which have to be contained in the image of a symbol element on the sensor to allow the decoding thereof,

ENT is the total part function,

Ky is an integer determined to allow decoding of the PDF 417 bar code symbols,

MIN is the minimum function,

and wherein hx = ENT [1/(2fx.Nminox.px)].